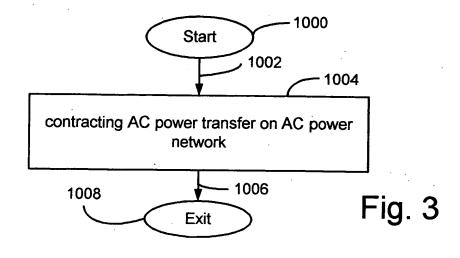


Fig. 1 Prior Art

Flo	owgate	•	•
Bus	Α	В	С
1	0.70	0.30	0.30
2	0.80	0.20	0.20
3	0.90	0.10	0.10
. 4	0.60	0.40	0.40
5	0.60	-0.60	0.40
6	0.50	-0.50	0.50
7	0.55	-0.55	0.45
8	0.20	-0.20	-0.20
9	0.05	-0.05	-0.05
10	-0.01	0.01	0.01
11	0.00	0.00	0.00
12	-0.05	0.05	0.05

Fig. 2 Prior Art



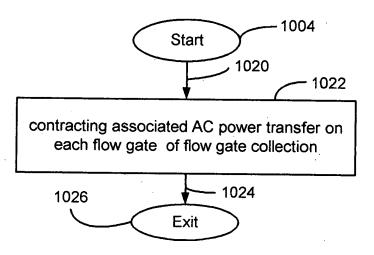
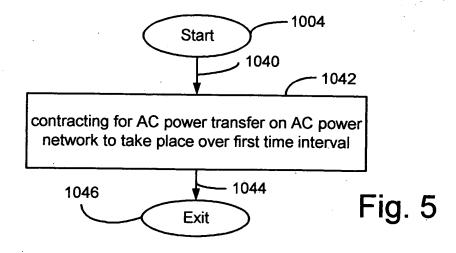
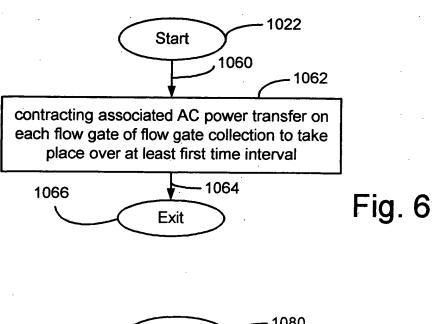
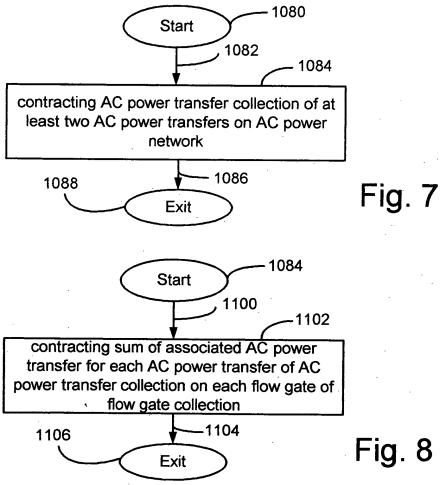
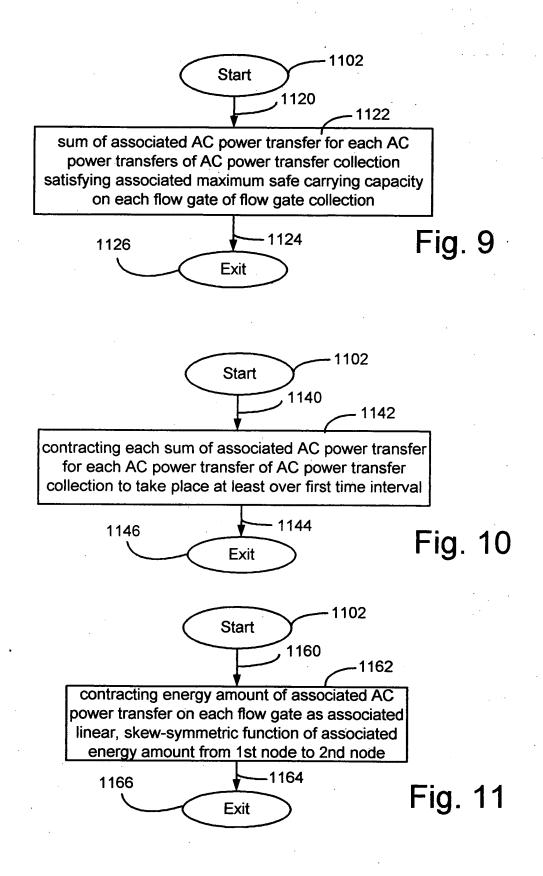


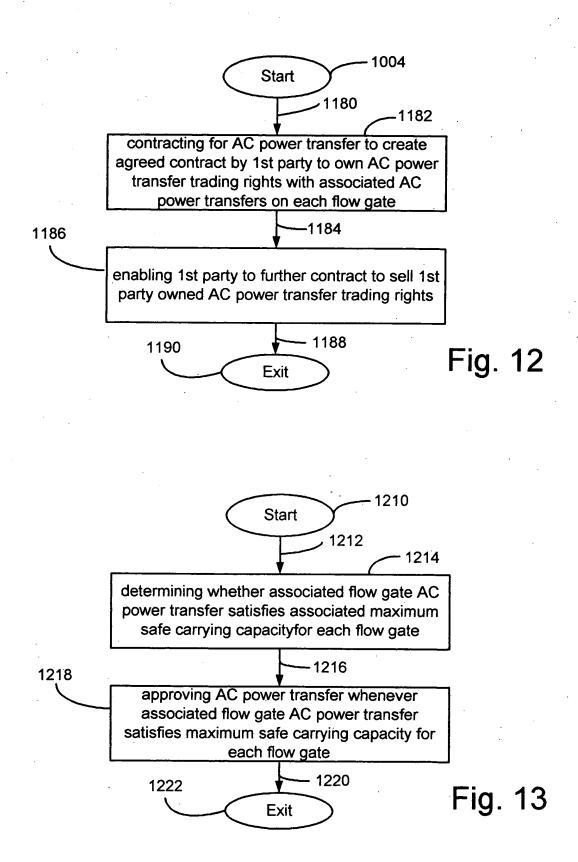
Fig. 4

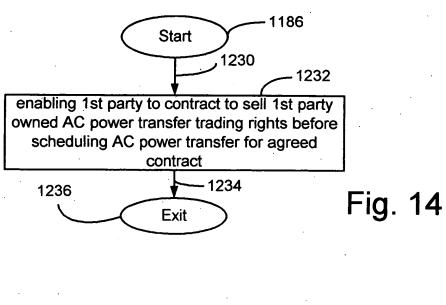


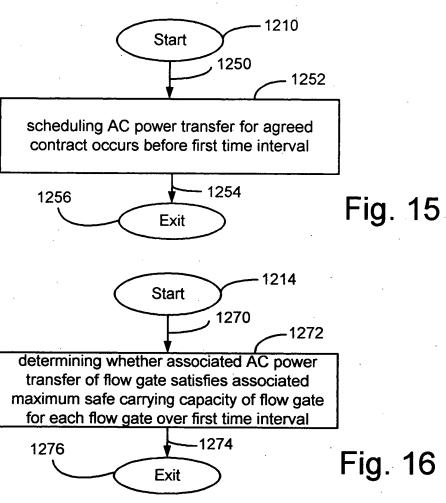


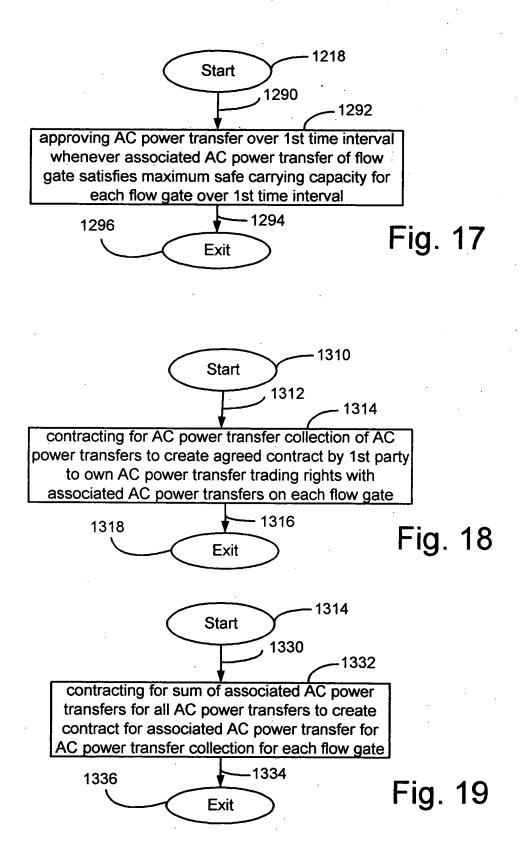


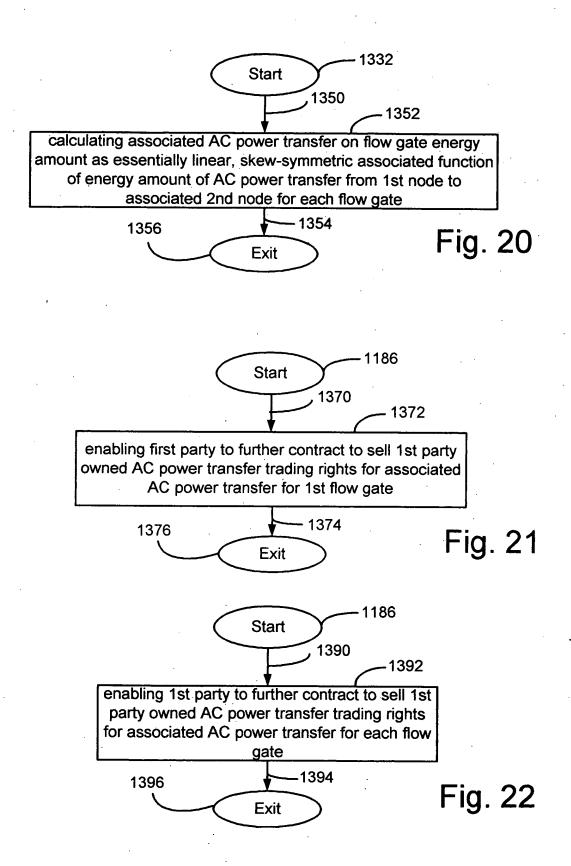












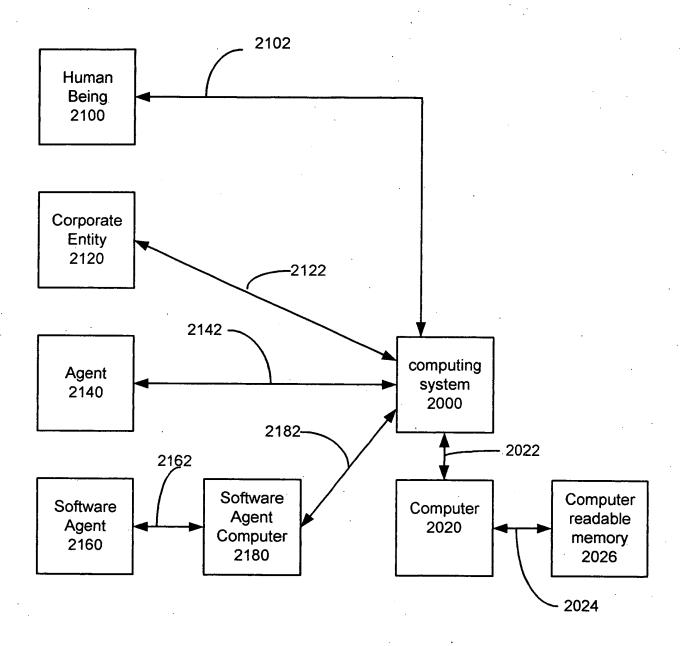
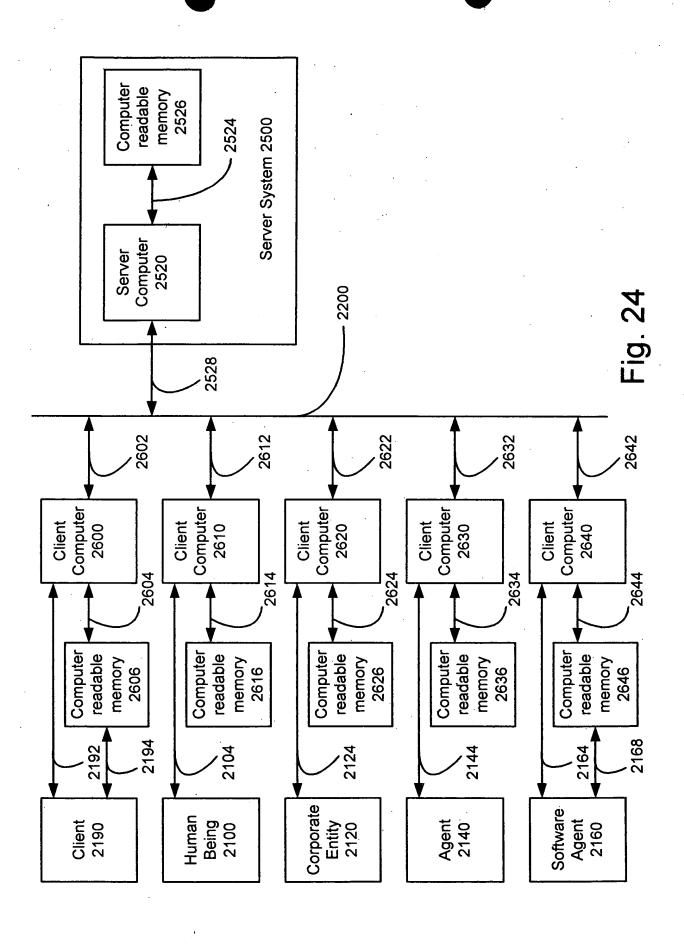
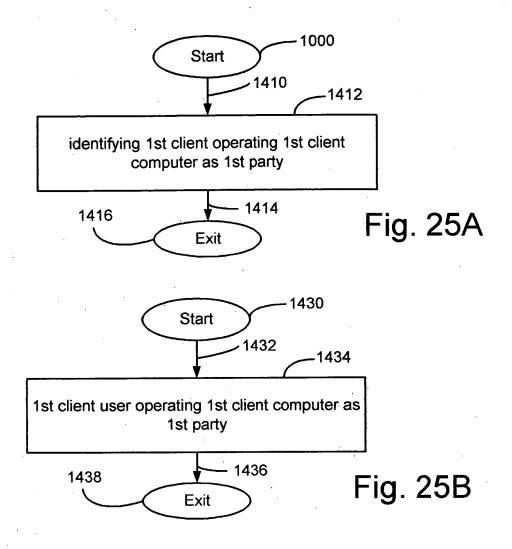
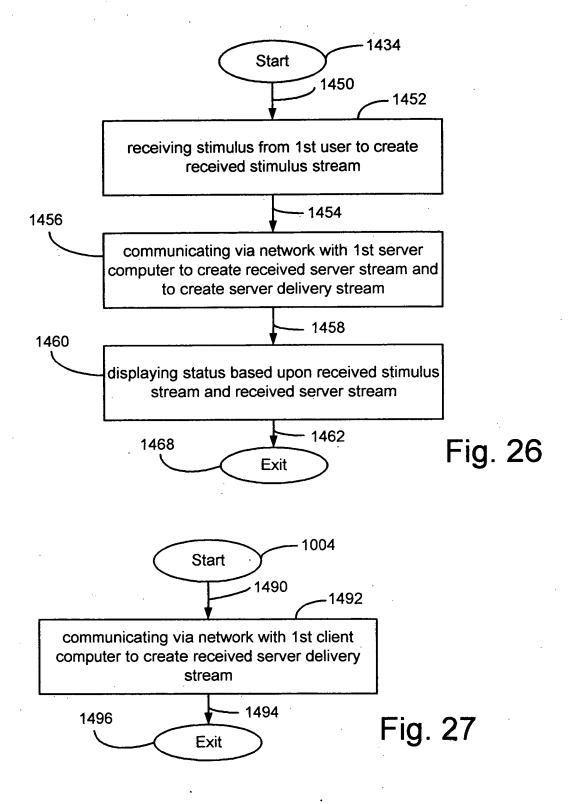
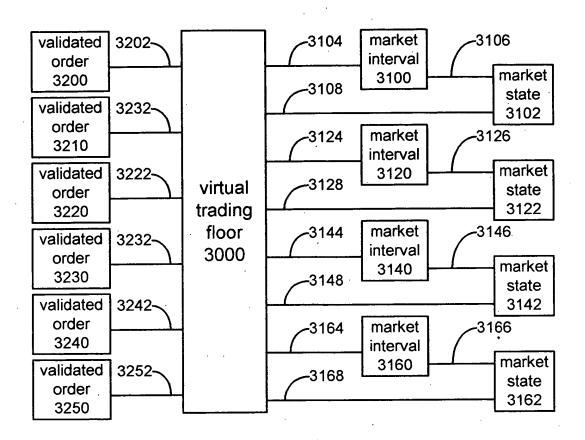


Fig. 23









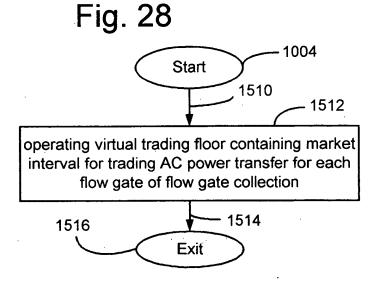


Fig. 29

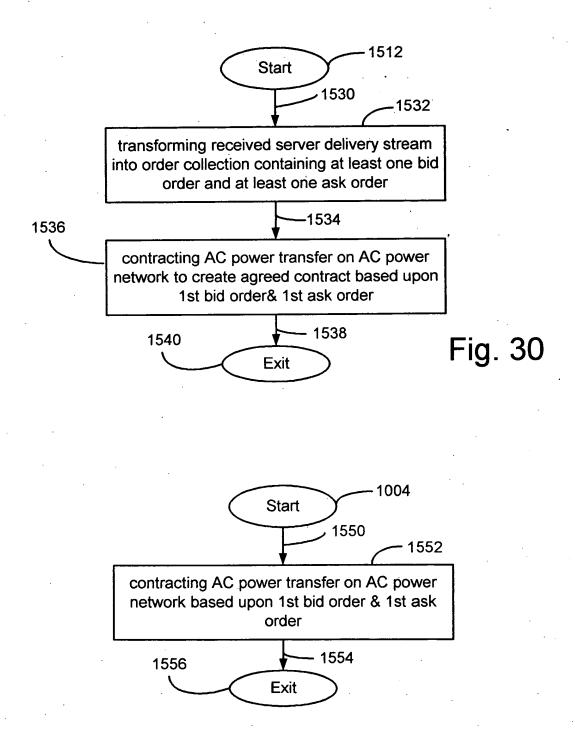
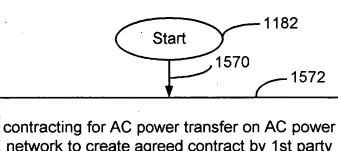


Fig. 31



contracting for AC power transfer on AC power network to create agreed contract by 1st party to own AC power transfer trading rights with associated AC power transfers on each flow gate based upon 1st bid order & 1st ask order

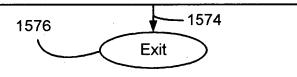


Fig. 32

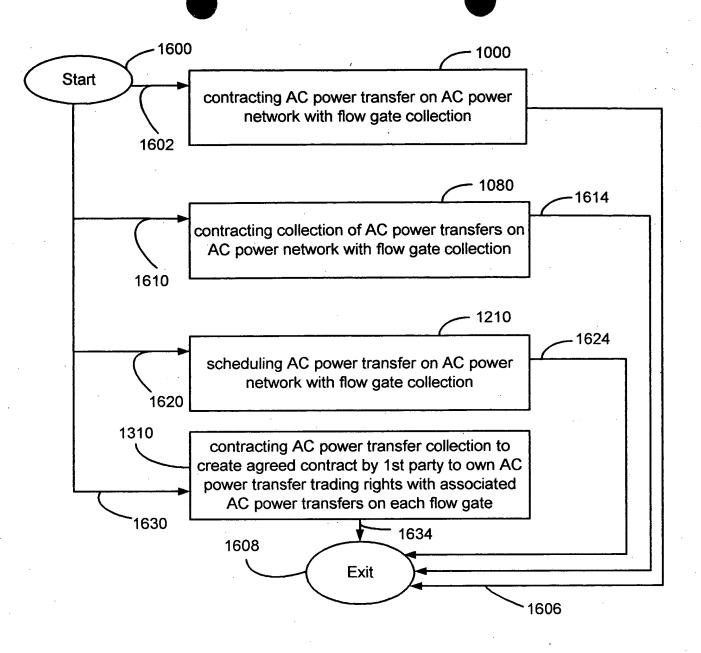


Fig. 33A

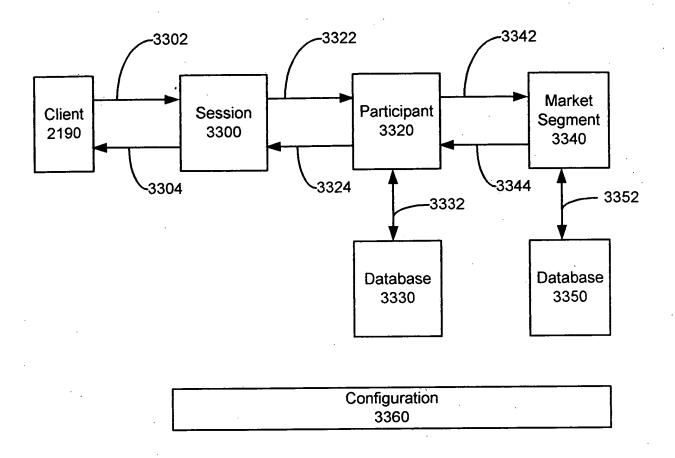
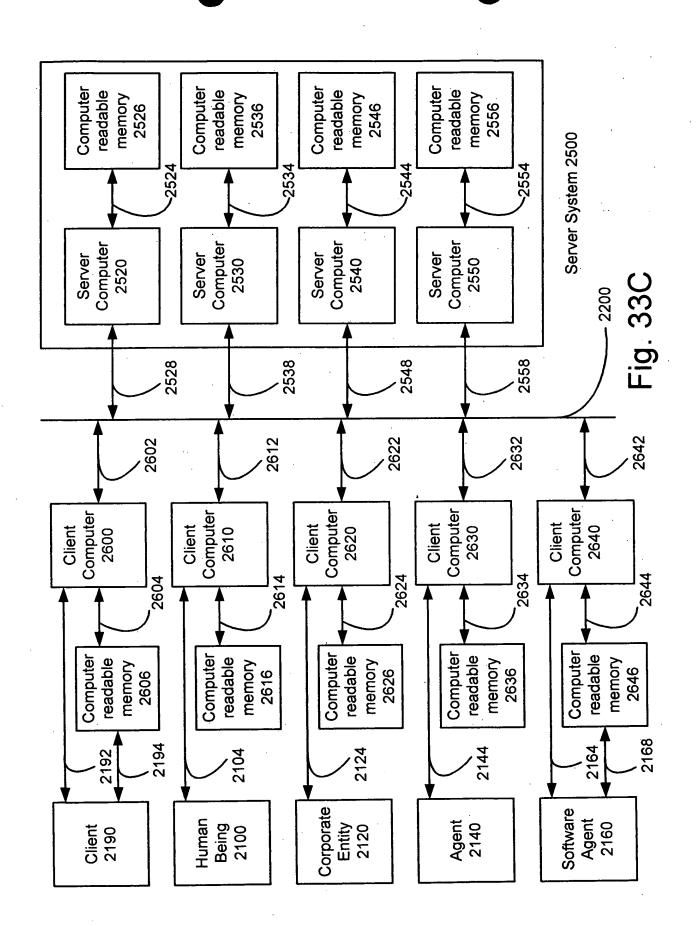


Fig. 33B



4000 APX Market Window (TM) (Generation Resources (Participant Sale)) File Edit View Order Message Tools Window Help Generation **GMM** Unit COCOPP 7 Unit 1 **Order Options** November 1998 Sell APX Zone Illinois Sun Mon Tue Wed Thu Fri Sat 1 2 3 4 5 6 7 Commodity | Hourly Energy ☐ Use Withdraw Date & Time Display Options ☐ Display order summary when Generation 8 9 10 11 12 13 14 MW's of **Total Only** submitting order(s) 18 21 15 16 17 19 20 Market Depth Highest Bid & Lowest Ask ▼ □ Display warning for orders Load 22 23 25 24 26 27 28 ☐Min & Max Order Allowed outside native zone 29 30 □Local Time (GMT-05:00) Eastern Time ☐ Only order in round lot Transfer 11/10/98 ☐Generation Curve multiple of 25 MW In Market Market Contracted Pending Total Highest Highest Lowest Lowest New Limit Limit Transfer Price Position Position **Position** Bid Bid Ask Ask Order Price Range Out Hour (\$/MWh) (Net MW) (Net MW) Quantity Price Quantity Price (Net (\$/ Ending (\$/MWh) (\$/MWh) (NetMW) (\$/MWh) MW) MWh) Import (ST) 1 14.54 0.00 0.00 0.00 **Export** 2 12.17 0.00 0.00 0.00 36.59 11.20 35.99 12.43 20.00 Or More 3 12.96 12.00 26.98 13.00 25.00 11.71 38.84 14.21 25.00 Trans-4 14.45 12.00 13.00 25.00 32.41 12.99 40.76 15.40 25.00 20.00 Or More mission 5 20.00 Or More 18.17 12.00 13.00 25.00 39.55 17.61 29.77 18.76 25.00 6 19.91 12.00 13.00 25.00 45.61 18.02 25.56 20.54 25.00 20.00 | Or More Initiate 7 22.31 25.00 0.00 25.00 40.33 20.89 34.16 23.17 25.00 20.00 Or More **Bilateral** 8 22.42 25.00 0.00 25.00 50.94 22.39 43.08 25.00 24.12 20.00 | Or More 9 23.47 25.00 0.00 25.00 59.49 22.40 40.09 25.00 25.28 20.00 Or More 10 24.05 25.00 0.00 25.00 61.26 24.05 46.29 25.28 25.00 20.00 Or More Confirm 11 24.17 25.00 0.00 25.00 26.94 24.17 50.06 24.71 25.00 20.00 Or More Bilateral 12 23.73 25.00 0.00 25.00 26.85 23.73 45.69 26.09 25.00 20.00 Or More 13 23.30 23.19 25.00 0.00 25.00 35.01 25.39 25.00 46.22 20.00, Or More **Portfolio** 21.26 20.00 | Or More 14 25.00 0.00 25.00 51.60 20.62 42.48 25.39 25.00 Manager 15 22.37 25.00 25.00 56.34 21.99 44.09 24.04 0.00 25.00 20.00, Or More 16 22.53 25.00 25.00 0.00 53.21 22.05 40.71 24.19 25.00 20.00 Or More 23.75 17 22.75 25.00 0.00 25.00 28.80 21.40 42.38 25.00 20.00 Or More Orders 23.80 20.00 Or More 18 25.00 0.00 25.00 48.05 23.58 40.24 25.05 25.00 19 24.75 25.00 0.00 25.00 38.89 24.05 34.85 26.81 25.00 20.00 | Or More 20 24.98 25.00 25.00 38.48 0.00 24.93 37.47 25.00 20.00 Or More 26.37 Graphs 21 24.07 25.00 0.00 25.00 31.43 23.64 31.10 25.47 25.00 20.00 | Or More 22 21.12 25.00 0.00 25.00 40.56 21.07 43.59 25.00 20.00 Or More 23.98 23 19.83 12.00 0.00 25.00 43.24 17.75 31.24 21.01 25.00 20.00 Or More Market 24 17.06 12.00 25.00 0.00 41.08 15.27 33.41 19.29 25.00 20.00 Or More Depth Withdraw Submit **Summary** Refresh Save

Fig. 34

APX Ma	APX Market Window (TM)		(Generation Resources (Participant Sale))	sonrces	Participa	nt Sale))								Γ	
File Edit	View	Order Message	Tools Window Help	low Help	C									Γ	
Generation		Generation		٥	GMM)										
	<u>L</u>	-	000	Unit	استسا	COCOPP_7	Unit 1			Order Options	ptions				
Load	Sun	Mon Tue Wed	ISS Fhu Fri Sat			Illinois ilv On Peak F	-nerdy (hr	7 to 221 K	ſŒ	☐ At Market	ket .	☐ Limit			1
Transfer	- c	က (5 6 7		1		6	777 00	a	Use Withdraw Date & Time	/ithdraw	Date & T	ime		- 4
드	, <u>, , , , , , , , , , , , , , , , , , </u>	12 18	19 20 21		Options				,	submitting order(s)	ay order summary submitting order(s)	a order(s			100
		23 24 25	27			Total Only				Oisp	☐ Display warning for orders	ing for o	rders)
Transfer Out	29 3				Market Depth Highest Bid And Lowest Ask ☐ Min & Max Order Allowed	Allowed	d Lowest	Ask	_	- 8 <u>-</u>	outside native zone	itive zone	o *		
	11/10/98	■ 86/0	11/24/98							<u> </u>	multiple of 25 MW	25 MW			
Import	Market	Day	.	Contracted Pending	Pending	Total	Highest	Highest	Lowest	Lowest	New	Limit	Limit	T ■	
1	Time	oĮ	Price	Position	Position	Position	Bid	Bid	Ask	Ask	Order	Price	Range	Τ	
Expor	Day	Week	(\$/MWh)	(\$/MWh) (Net MW)	(NetMW) (Net MW)	(Net MW)		Price	Quantity		(Net)		
Trans-	Ending						(\$/MWh)	(\$/MWh)	(NetMW)	(\$/MWh)	(MM	MWh)			
mission	44/07/4008	Coturday	22.46	0	c	0									
	11/08/1998	Sunday	21.07	00.00	00.0	000									
Initiate		Monday	22.58	0.00	0.00	0.0									
Bilateral	_	Tuesday	17.58	0.00	0.00	0.00									
	11/11/1998	Wednesday	~	0.00	0.00	0.00				l L	1				
Confirm	11/12/1998	Thursday	16.72	10.00	0.00	0.00	25.50	20.61	35.50	, 23.28	25.50		Or More		
Bilateral	11/13/1998	Friday	22.27	10.00	0.00	10.00	30.56	22.25	42.21	25.21	30.56		Or More		
	11/14/1998	Saturday	23.70	0.00	90.04	10.00	51.64	15.12	48.82	15.98	51.64		Or More		
Portfolio	_	Sunday	10.07	3 5	9.0	00.00	75.30	13.24	CS: 74	15.89			Or More		
Manager	11/16/1998	Monday	16.15 20.51	10.00	000	10.00	37.26	20.45	48.42	21.64		20.45 (Or More		
	_	Wednesday 18	v 18.60	0.00	00.0	0.00	2	2	5.10	5	3		D D D D	•	
[11/19/1998	Thursday		0.00	0.00	0.00									
Orders	11/20/1998	Friday		0.00	0.00	0.00									
	11/21/1998	Saturday		0.00	0.00	0.00			Ц	Fig. 25	2				
Graphs	11/22/1999	Sunday		0.0	0.0	0.00			-	<u>.</u>	2				
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	11/23/1998	Monday		0.00	0.00	0.00									
Market		,				_		-						▶	
Depth	Submit	Withdraw	Summary								Save		Refresh		
														7	

APX Market Window (TM) (Flowgate Trading)										
APX Market Window (TM) (Flowgate Trading)									<u> </u>	
File Edit View Order Message Tools Window Help										
				Flowga	ate [COCOPP_	7 Unit 1	¥202 o	rder Options	
	May		999	Comm		Hourly Flor				Limit
Su 1		ue Wed Thu 3 4 5				1100117110	nguto		Use Withdraw	
8	9 1	1 1	1 1 1	Displa	y Options			_	Display order s	
1	1 1	17 18 19	20 21	•	,				submitting	•
22	1 1			Market	t Depth	None		™ 6	Display warn	` '
29					Max Orde				outside na	
5/	10/99	4 b :	5/10/99	□Local	Time (GN	(T-00:00) C	MT Time	e ∀ [Only order in	round lot
<u> </u>	10/33		10/33						multiple of	25 MW
Market	Market	Contracted	Pending	Total	New	Limit	Limit	N0CA->SoCA	N0CA->SoCA	N0CA->SoCA
Time	Price	Position	Position	Position	Order	Price	Range	Contracted	Pending	Total
	(\$/MWh)	(Net MW)	(NetMW)	(NetMW)	(NetMW)	(\$/MWh)	•	Flow	Flow	Flow
Ending		,4204						(Net MW)	(Net MW)	(Net MW)
(DT)	-									
ليًا	0.00		0.00	0.00				0.00	0.00	0.00
2	0.00	0.00	0.00	0.00				0.00	0.00	0.00
3	0.00	0.00	0.00	0.00				0.00	0.00	0.00
4 5	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00				0.00	0.00	0.00
6	0.00	0.00	0.00	0.00				0.00 0.00	0.00 0.00	0.00
7	0.00	0.00	0.00	0.00	•			0.00	0.00	0.00 0.00
8	0.00	0.00	0.00	0.00				0.00	0.00	0.00
9	0.00	0.00	0.00	0.00				0.00	0.00	0.00
10	0.00	0.00	0.00	0.00				0.00	0.00	0.00
11	0.00	0.00	0.00	0.00				0.00	0.00	0.00
12	0.00	0.00	0.00	0.00				0.00	0.00	0.00
13	0.00	0.00	0.00	0.00				0.00	0.00	0.00
14	0.00	0.00	0.00	0.00				0.00	0.00	0.00
15	0.00	0.00	0.00	0.00				0.00	0.00	0.00
16	0.00	0.00	0.00	0.00				0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	٠	4206		0.00	0.00	0.00
18	0.00	0.00	0.00	0.00		- -		0.00	0.00	0.00
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23 24	0.00	0.00	0.00	0.00		l		0.00	0.00	0.00 0.00
<u>-</u> T						<u> </u>		0.00		
	Sub	mit with	draw Su	ımmary					Save	Refresh

Fig. 36